



TROPICAL STORM LAURA BRIEFING

4:30 PM CT

Sunday August 23rd

Prepared by: Dan Reilly, WFO Houston/Galveston

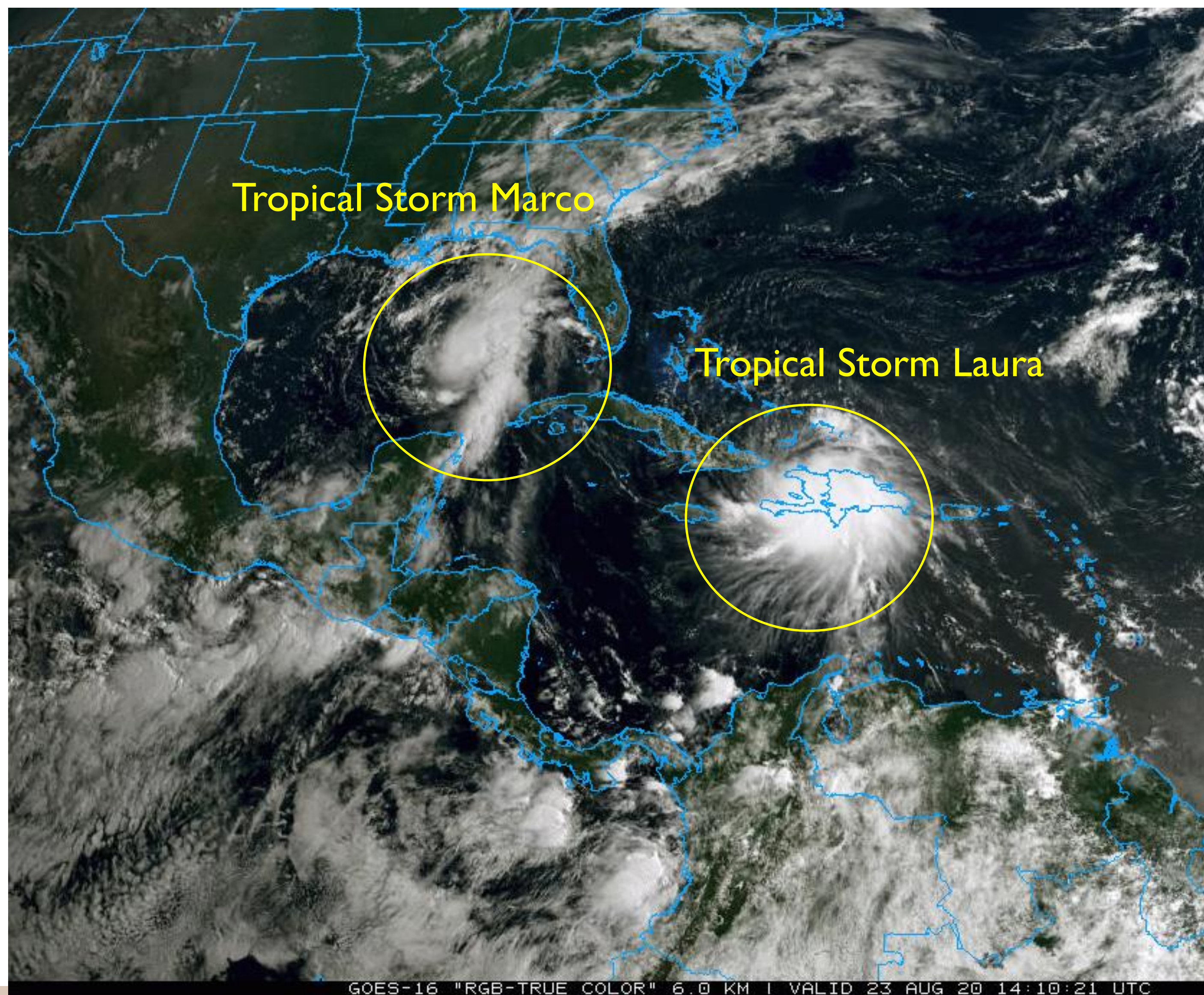
What has changed: Tropical Storm Laura remains a threat to Texas. Only slight changes to track today. Forecast to make landfall as a Category 2 Hurricane along Upper Texas or Louisiana Coast

Current Satellite View

Tropical Storm Laura



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- Hurricane Marco and Tropical Storm Laura shown. Laura also forecast to become a hurricane.
- For Marco more significant impacts should be across Louisiana. Marco will likely make a left turn and weaken either before or after Louisiana landfall.
- A landfall of Laura as a hurricane along the Upper Texas coast is possible which would bring significant wind, storm surge and rainfall to the area. Could also curve north into Louisiana.

GOES-16 "RGB-TRUE COLOR" 6.0 KM 1 VALID 23 AUG 20 14:10:21 UTC

8/23/2020 5:00 PM

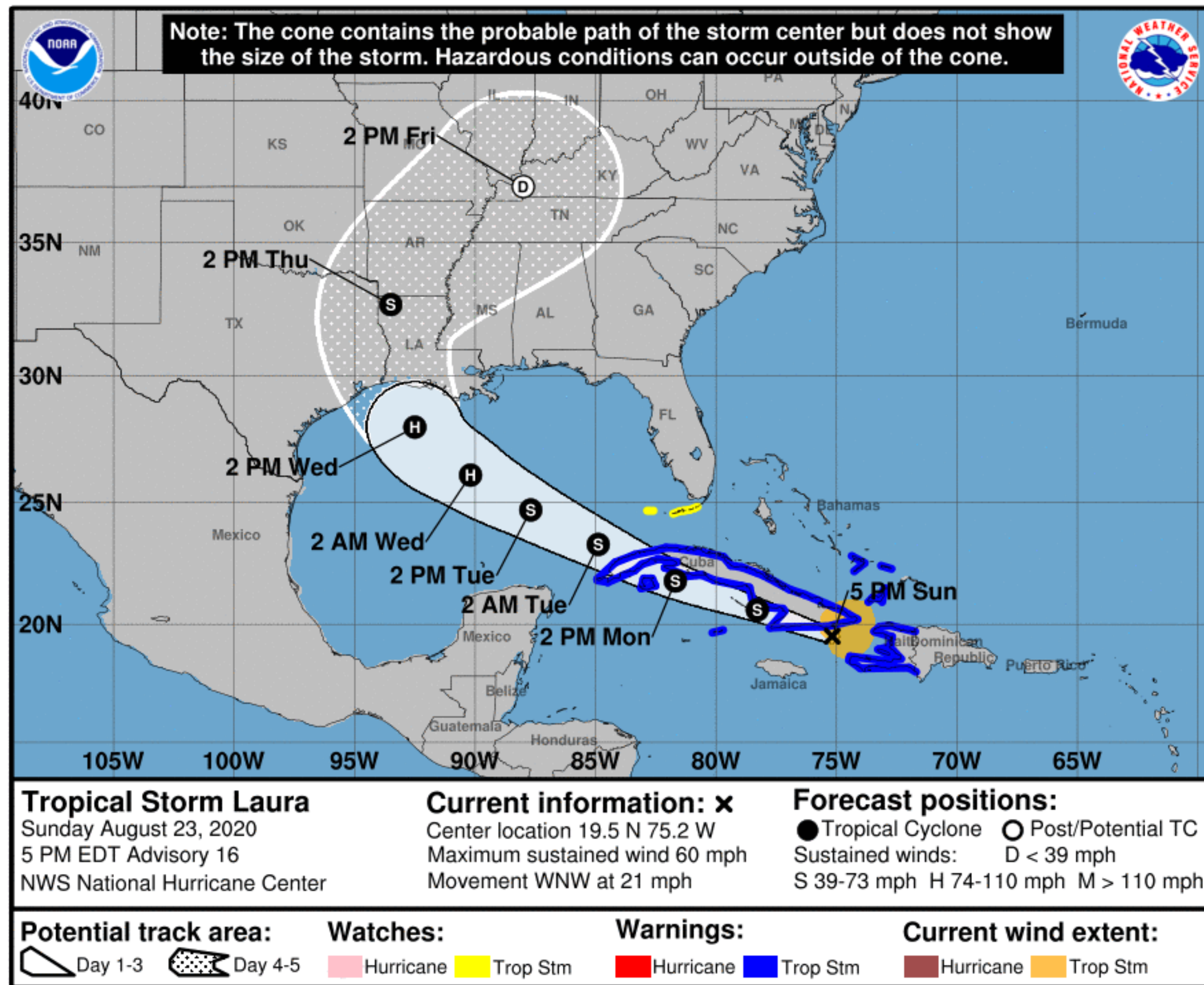
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Situation Overview

Tropical Storm Laura



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NOTE: Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.

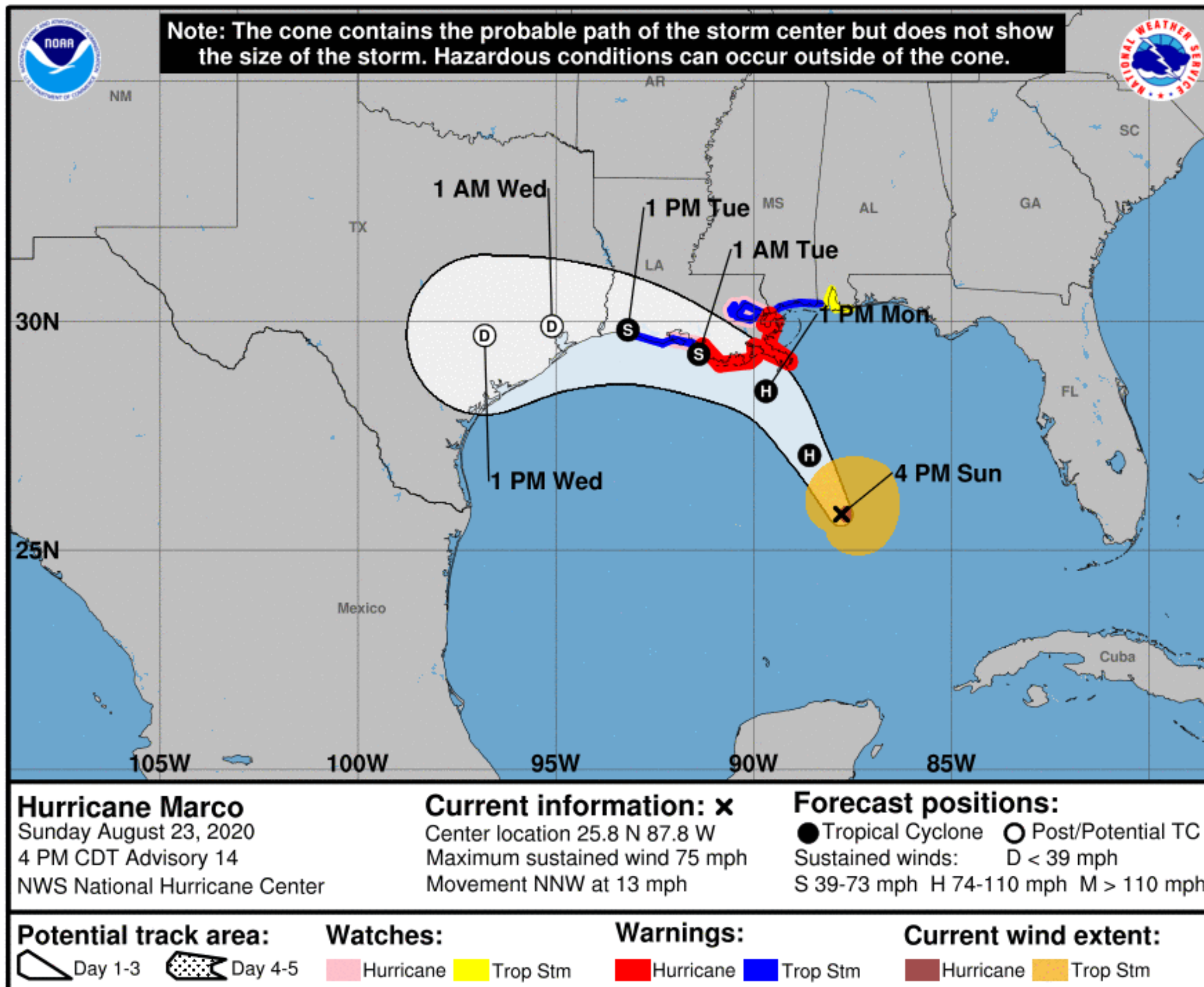
- Forecast track/cone shown. SE TX well inside the forecast cone. Note landfall likely Wednesday afternoon or evening. Center could reasonably track anywhere within the cone.
- Intensity at landfall forecast to be 90 knots or 100 mph which would make it a Cat 2 on SSHWS.
- Uncertainty in track should decrease once Laura emerges from the Caribbean Islands and out into the Gulf Monday night, early Tuesday morning.
- Not expected to slow down, should move steadily across the area.
- Based on past track errors, center will track within the cone 2/3 of the time.

Situation Overview

Tropical Storm Laura



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- Forecast to make landfall SE Louisiana as a category one hurricane. Expected to bend/turn toward the left either after or before landfall, but expected to weaken as it tracks westward.
- It is possible a much-weakened Marco could track into E or SE TX Tuesday afternoon or night. Would be a depression or a remnant low.
- Main impacts from Marco for TX will be at the beaches with some increased surf, rip current risk...likely starting Monday night, but relatively minor.

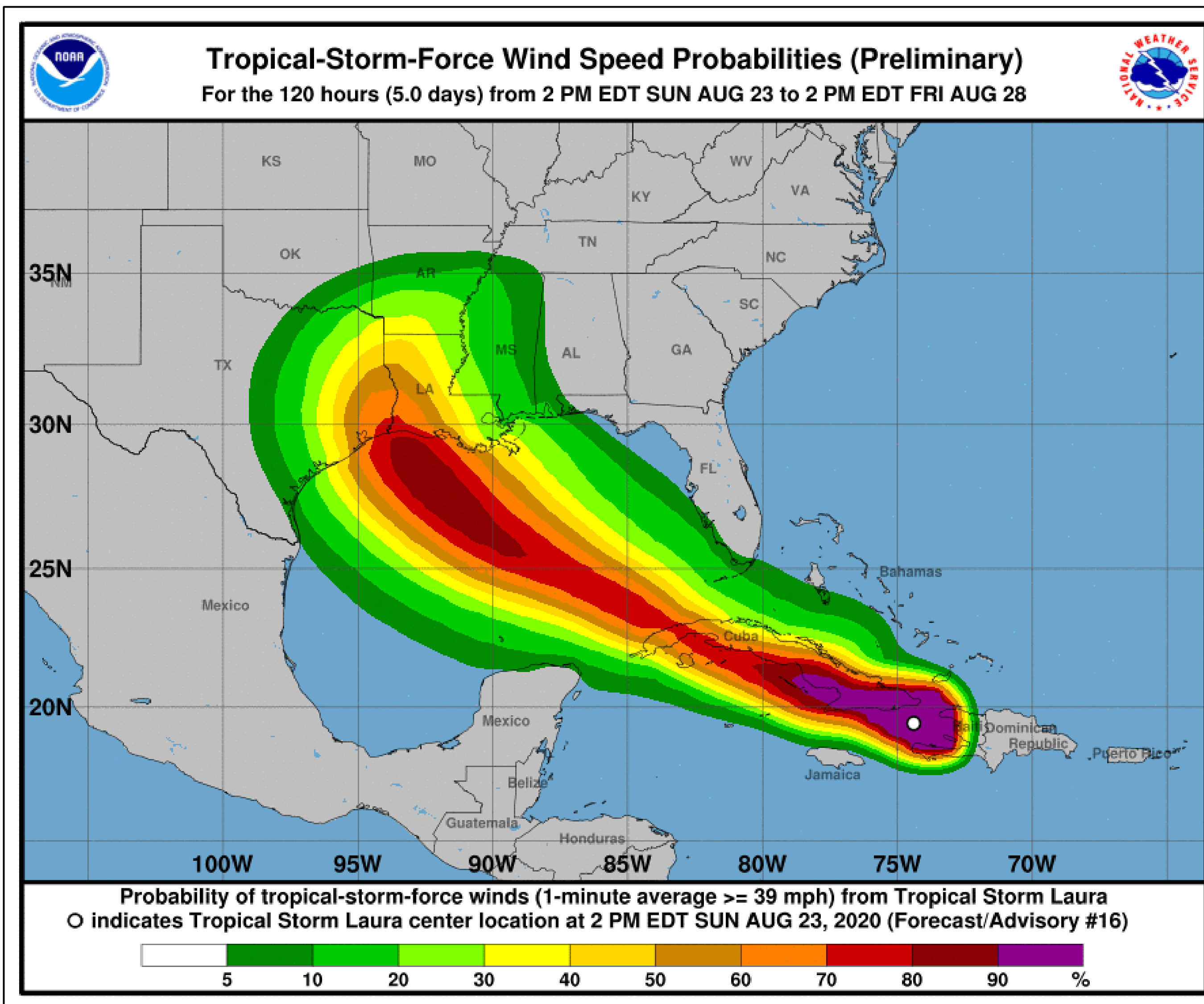
NOTE: Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.

TS Wind Speed Probabilities

Tropical Storm Laura



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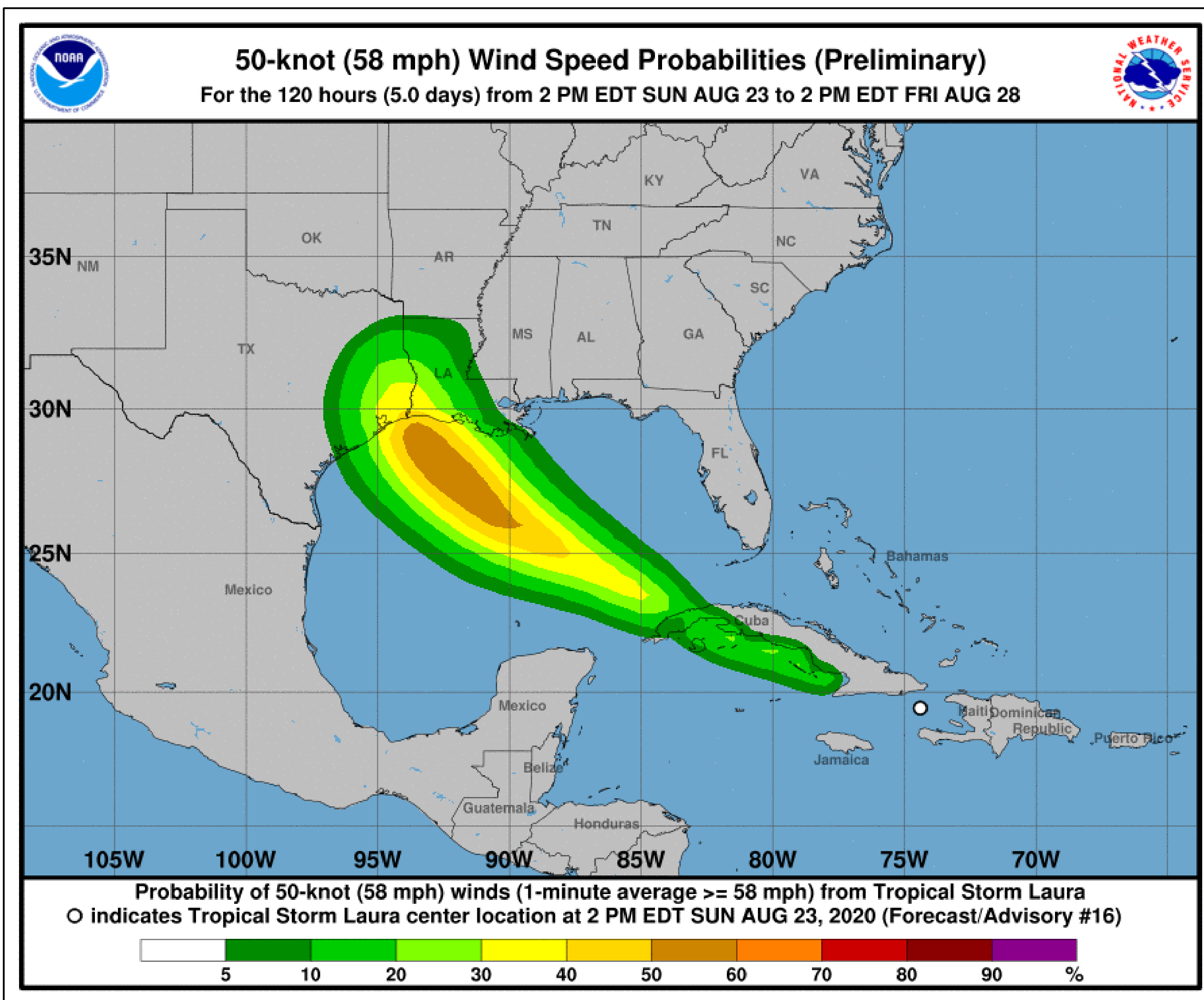
- Point probabilities of tropical storm force winds over the next 5 days are shown.
- Greatest chances for Mid and Upper Texas and Louisiana coasts and offshore waters.
- ***Still uncertainty*** in track and intensity with Laura but tracks more clustered than with Marco.

50kt Wind Speed Probabilities

Tropical Storm Laura



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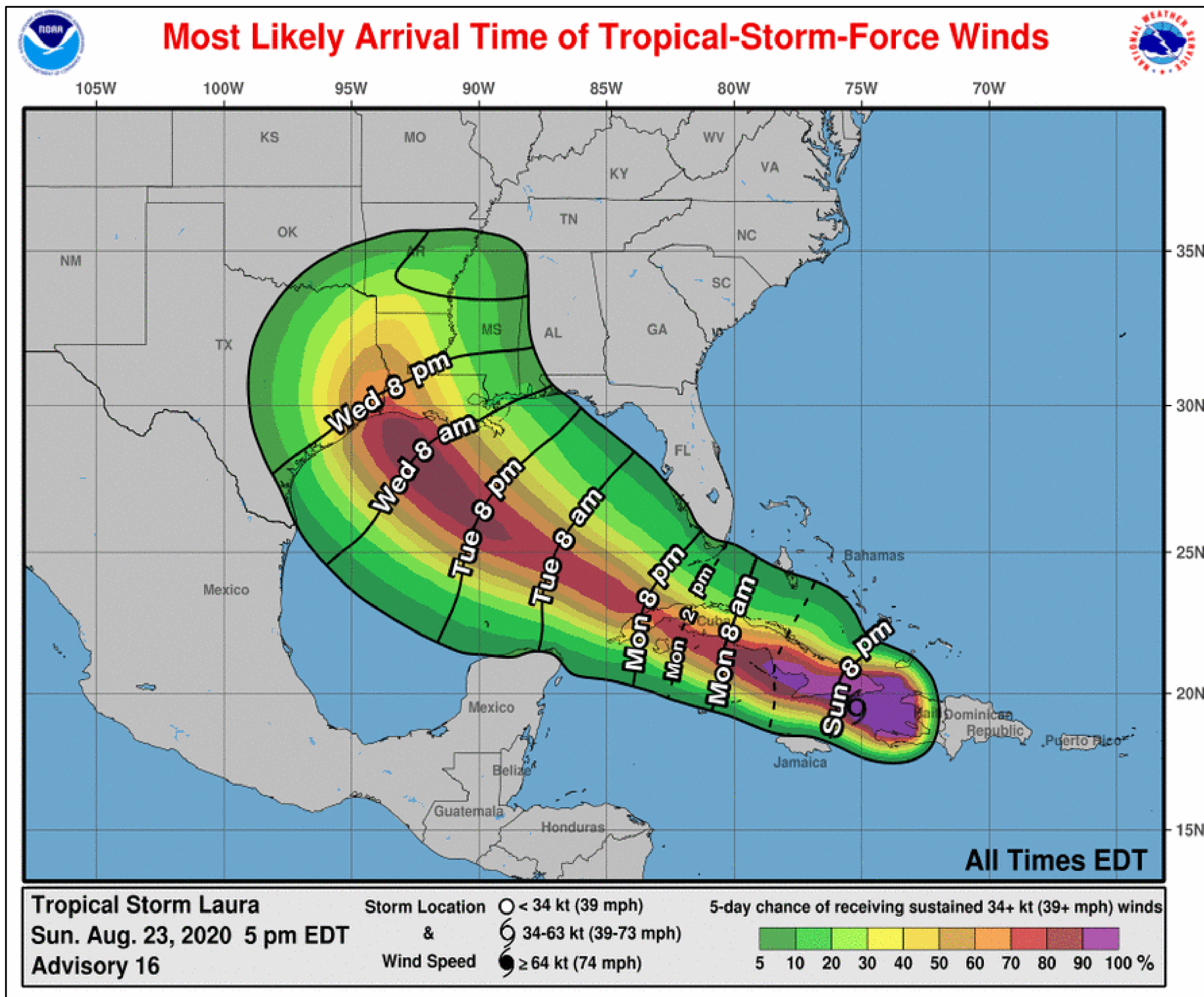
- Point probabilities of 58 mph sustained winds over the next 5 days are shown for Laura.
- ***Still uncertainty*** in track and intensity but highest values focussed on upper TX and SW LA coasts.

Most Likely Time of Arrival

Tropical Storm Laura



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- Time arcs show most likely arrival times of tropical storm force winds for TS Laura. Colors show the probability of TS force winds over next 5 days.
- Most likely arrival time of TS winds from Laura would be Wednesday evening.

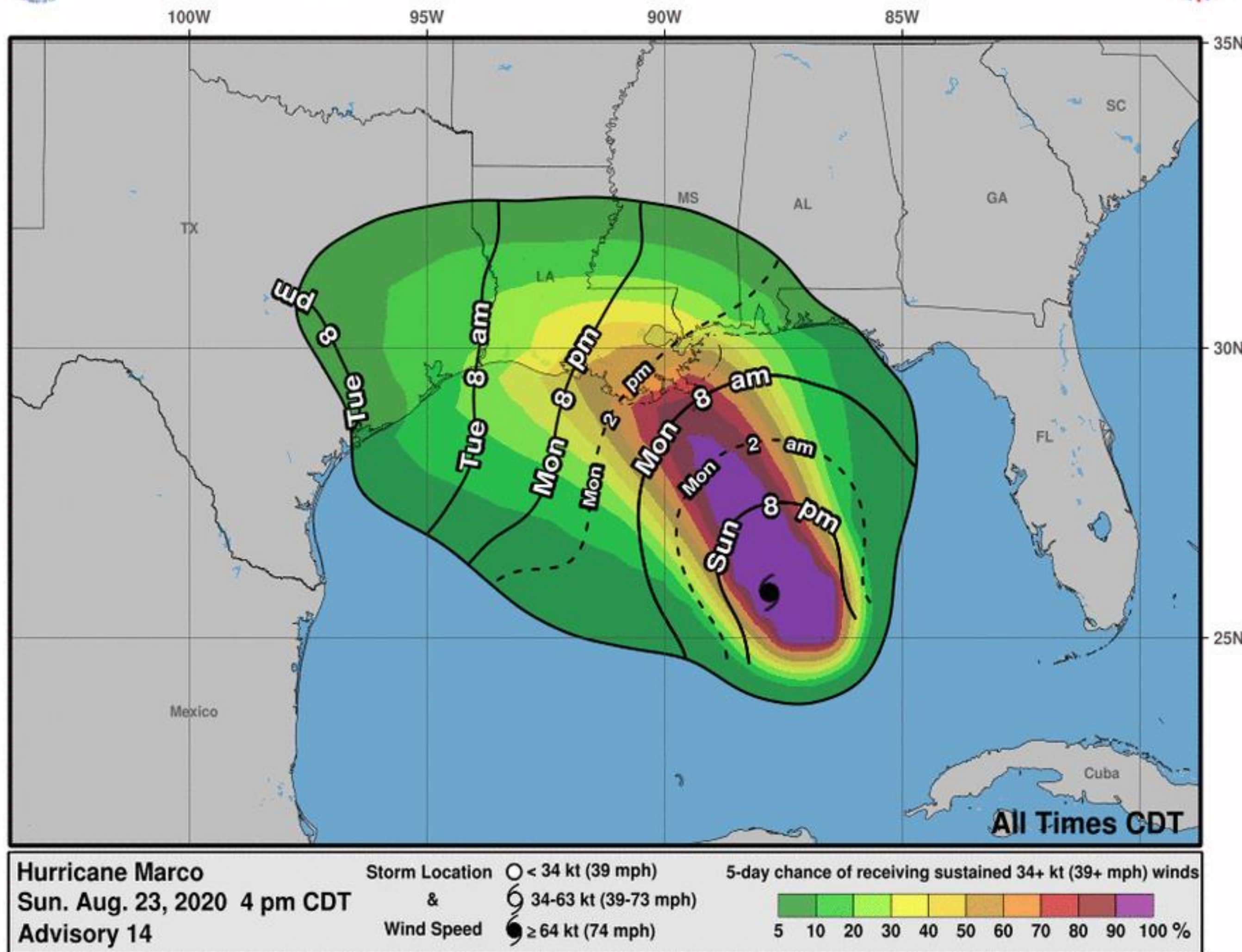
Most Likely Time of Arrival

Tropical Storm Marco



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Most Likely Arrival Time of Tropical-Storm-Force Winds



- Time arcs show most likely arrival times of tropical storm force winds for TS Marco. Colors show the probability of TS force winds over next 5 days.
- IF Marco brings TS force winds to SE Texas, would arrive Tuesday morning but this is unlikely as storm will be weakening.

Potential Storm Surge from Laura

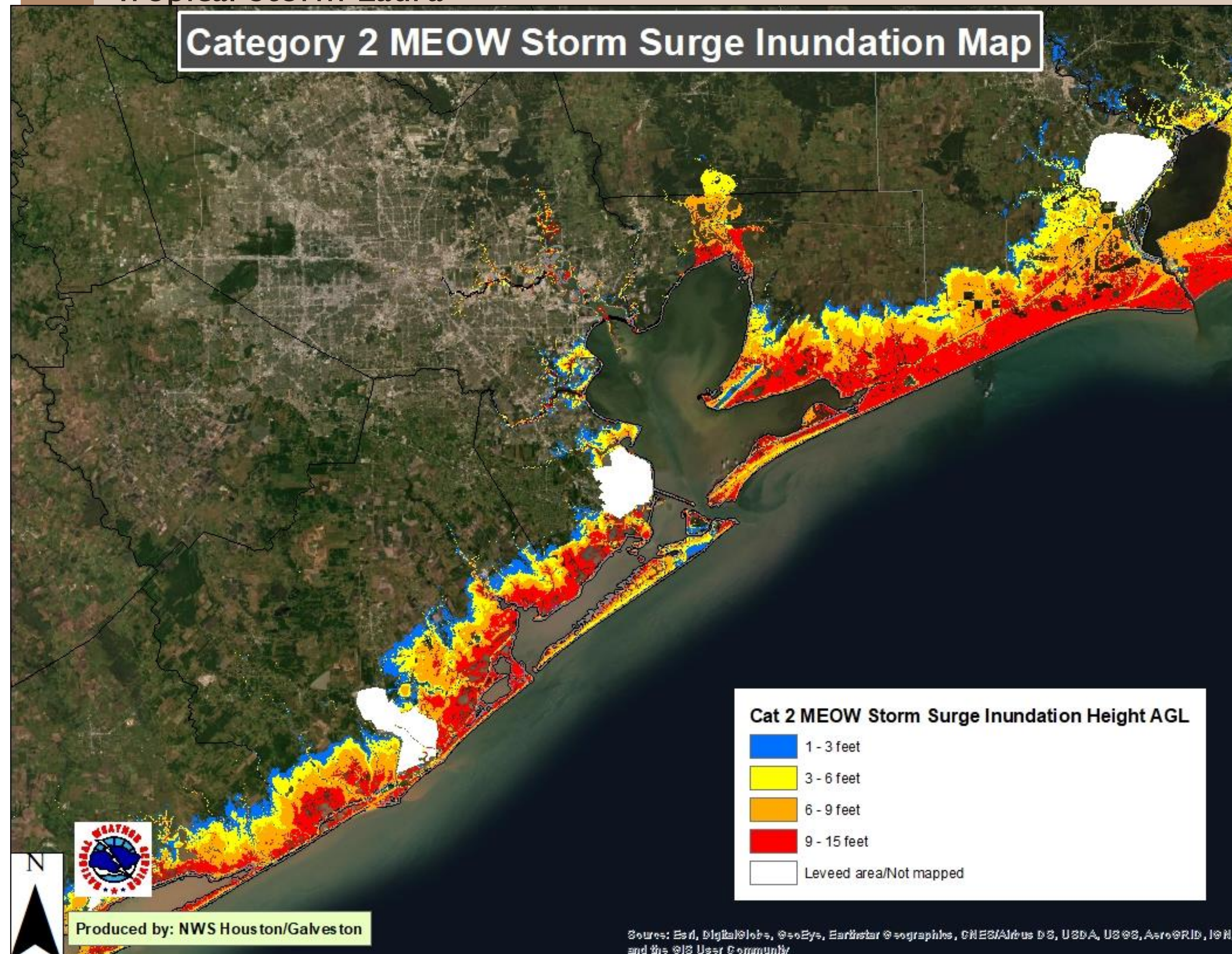
Tropical Storm Laura



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Category 2 MEOW Storm Surge Inundation Map



National Hurricane Center recommends using a category 2 hurricane model for planning. What is shown is a worst-case scenario for a direct hit at a point from a Cat 2 hurricane. Shown is inundation or water level above ground at a point with a direct hit.

Areas of greatest risk:

- Low lying areas near Bays and Gulf of Mexico
- Bolivar Peninsula, Galveston Island

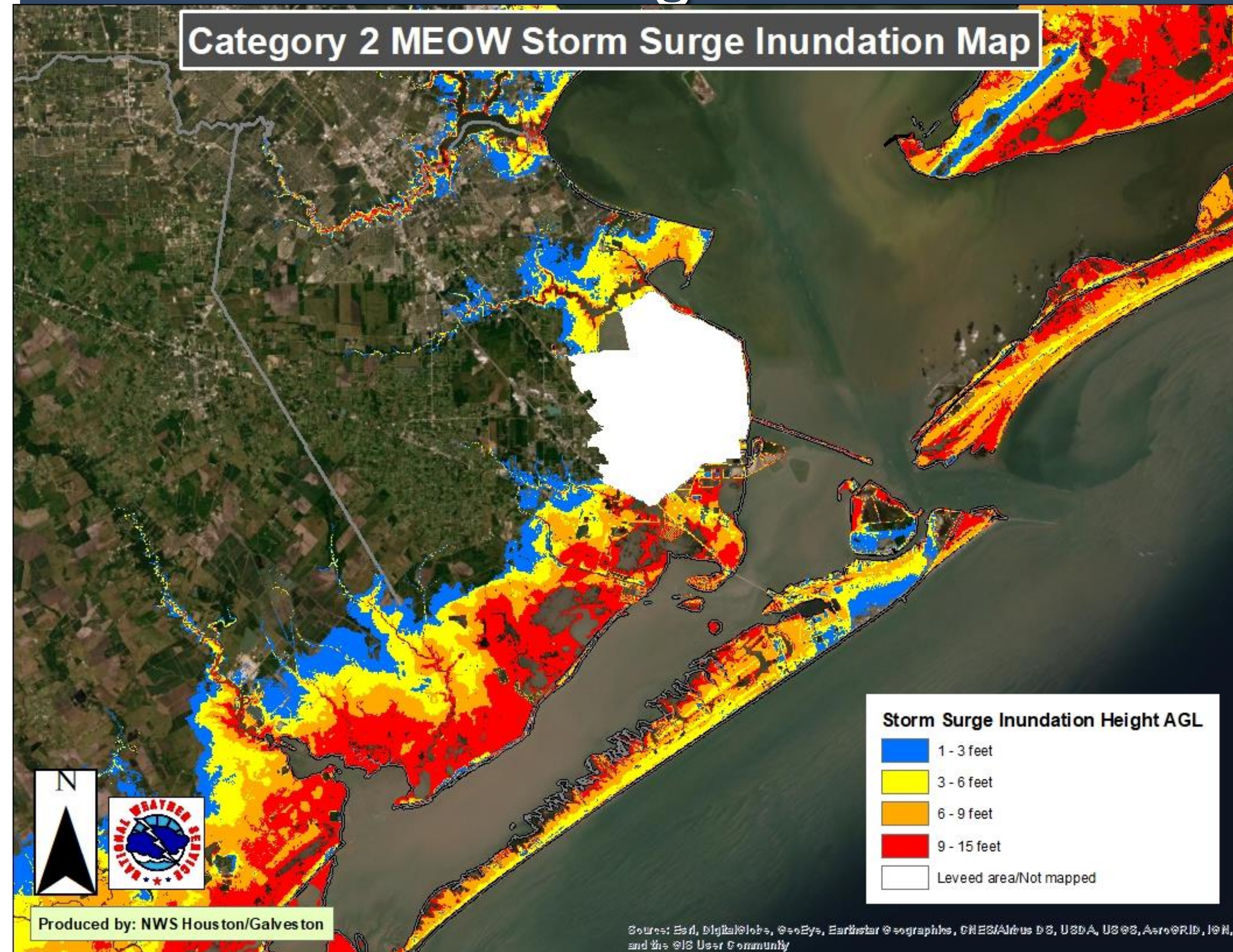
Timing

- Storm surge inundation could begin as early as Wednesday
- These values assume a direct strike near of right of the center track near that point.

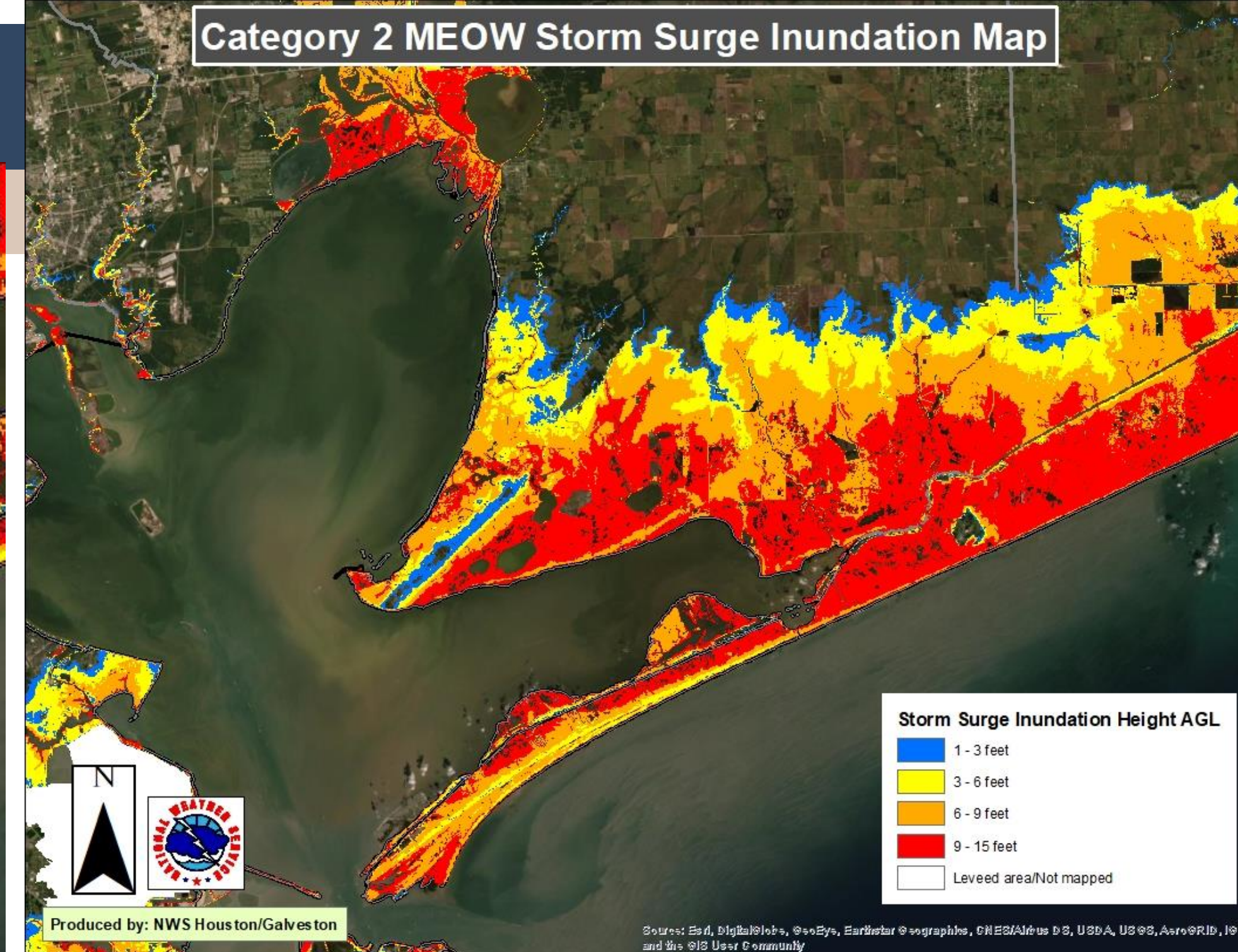
<https://www.nhc.noaa.gov/surge/meowOverview.php>

Potential Storm Surge from Laura

Category 2 MEOW Storm Surge Inundation Map



Category 2 MEOW Storm Surge Inundation Map



Worst case inundation at a point from a Category 2 hurricane...used for planning purposes.

<https://www.nhc.noaa.gov/surge/>

<https://www.nhc.noaa.gov/surge/slosh.php>

SLOSH MEOW for a Category 2 Hurricane moving NW at 10 mph at high tide - AGL

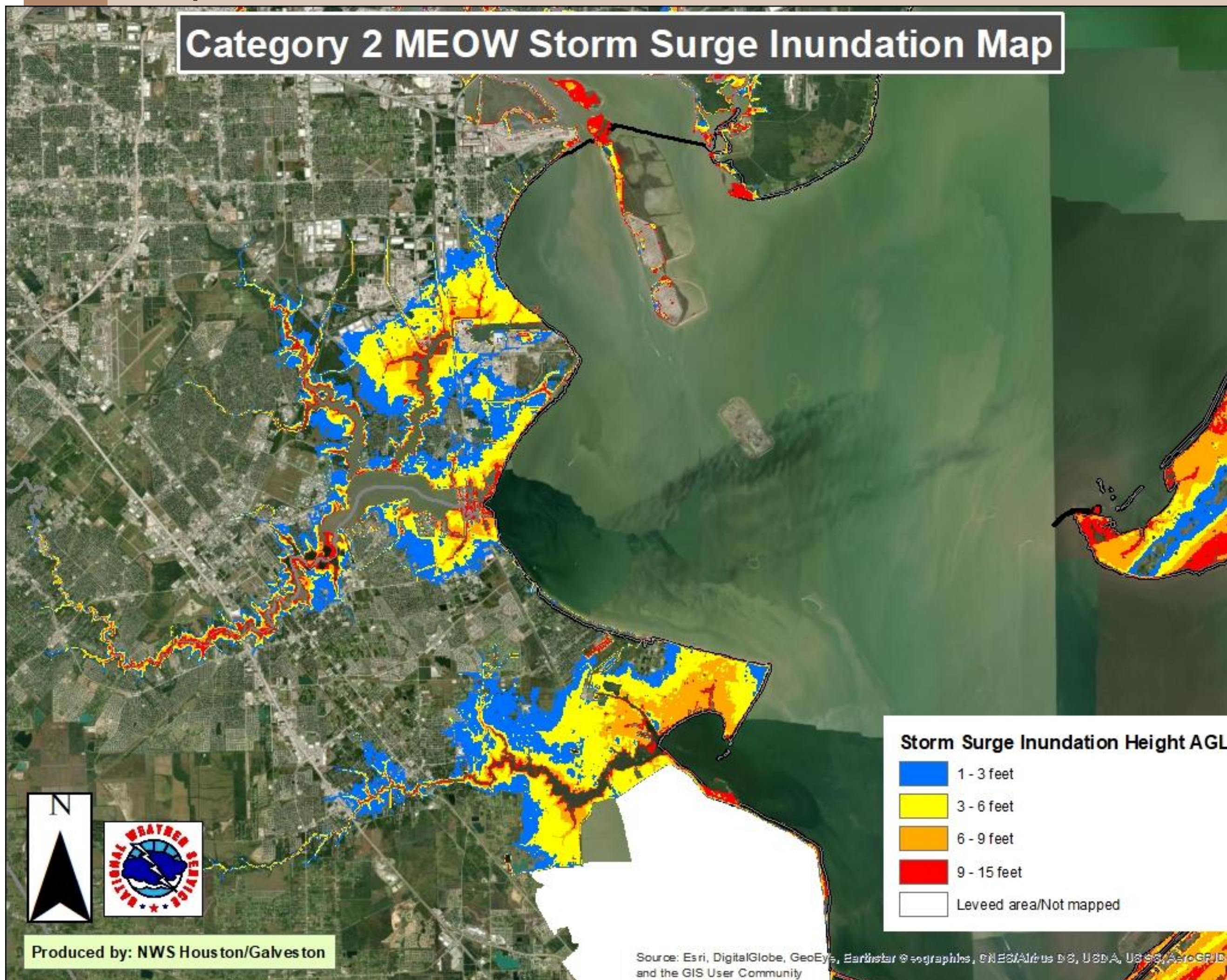
Potential Storm Surge from Laura

Tropical Storm Laura

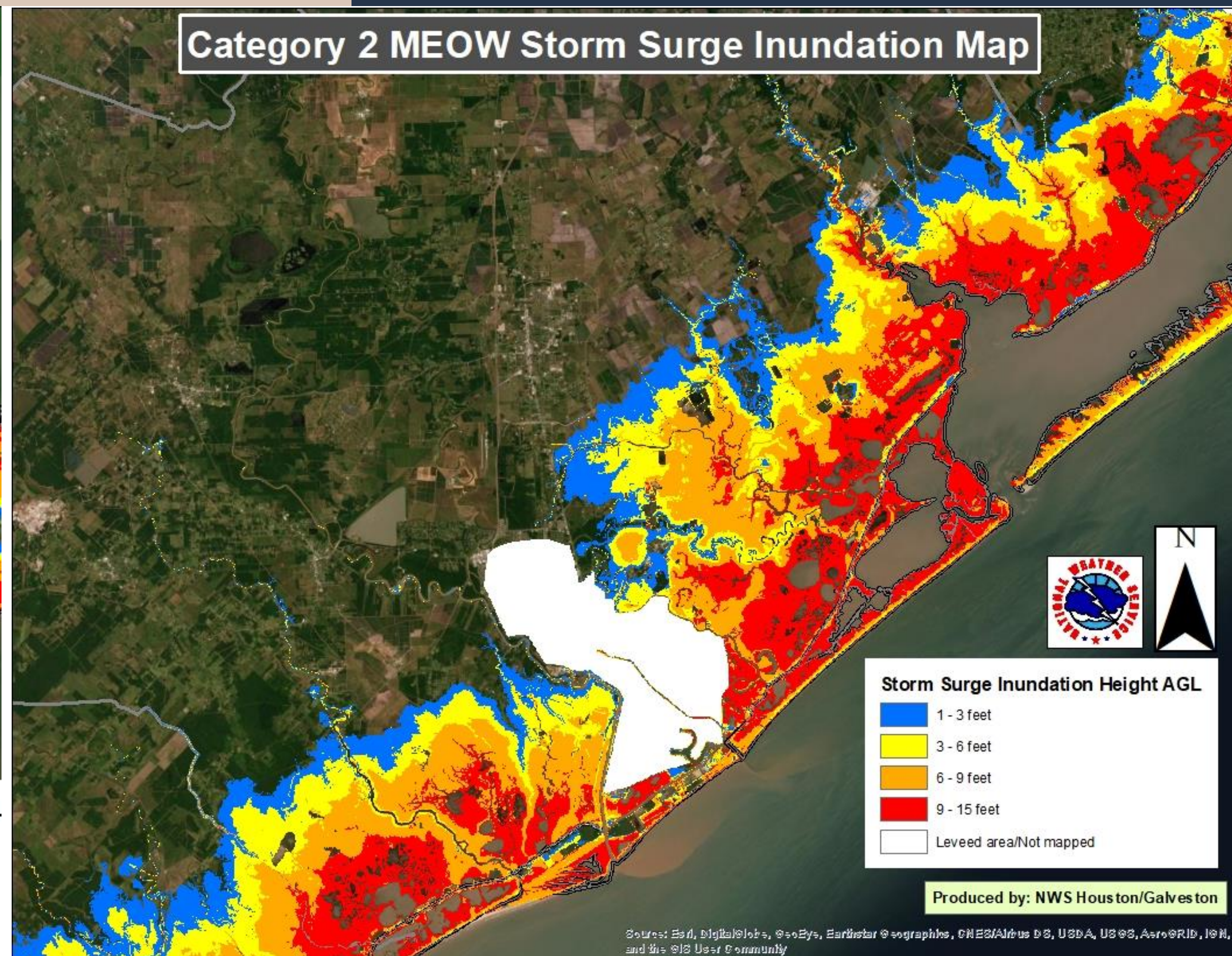


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Category 2 MEOW Storm Surge Inundation Map



Category 2 MEOW Storm Surge Inundation Map



Worst case inundation at a point from a Category 2 hurricane...used for planning purposes.

SLOSH MEOW for a Category 2 Hurricane moving
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Seas

Tropical Storm Laura

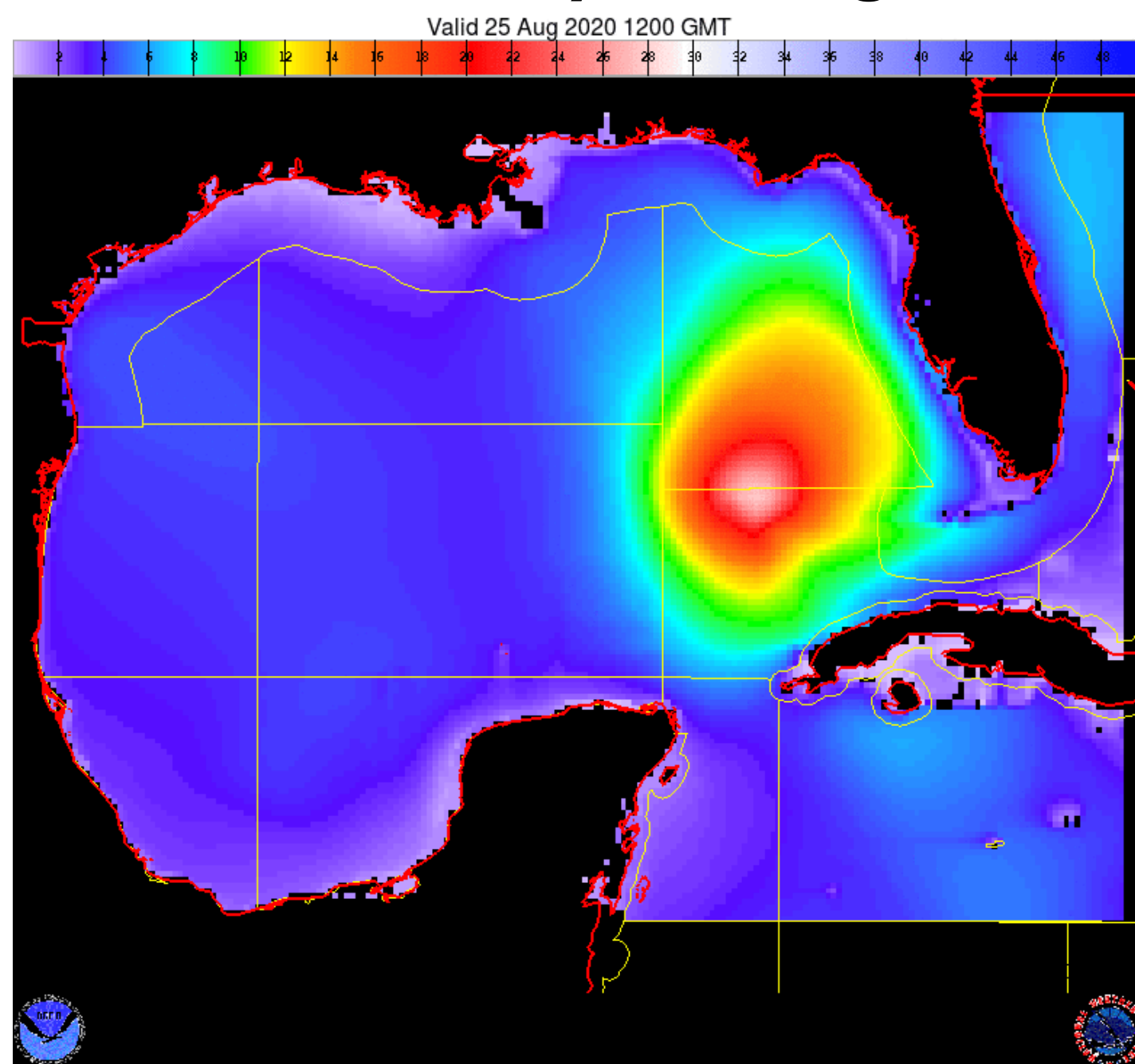


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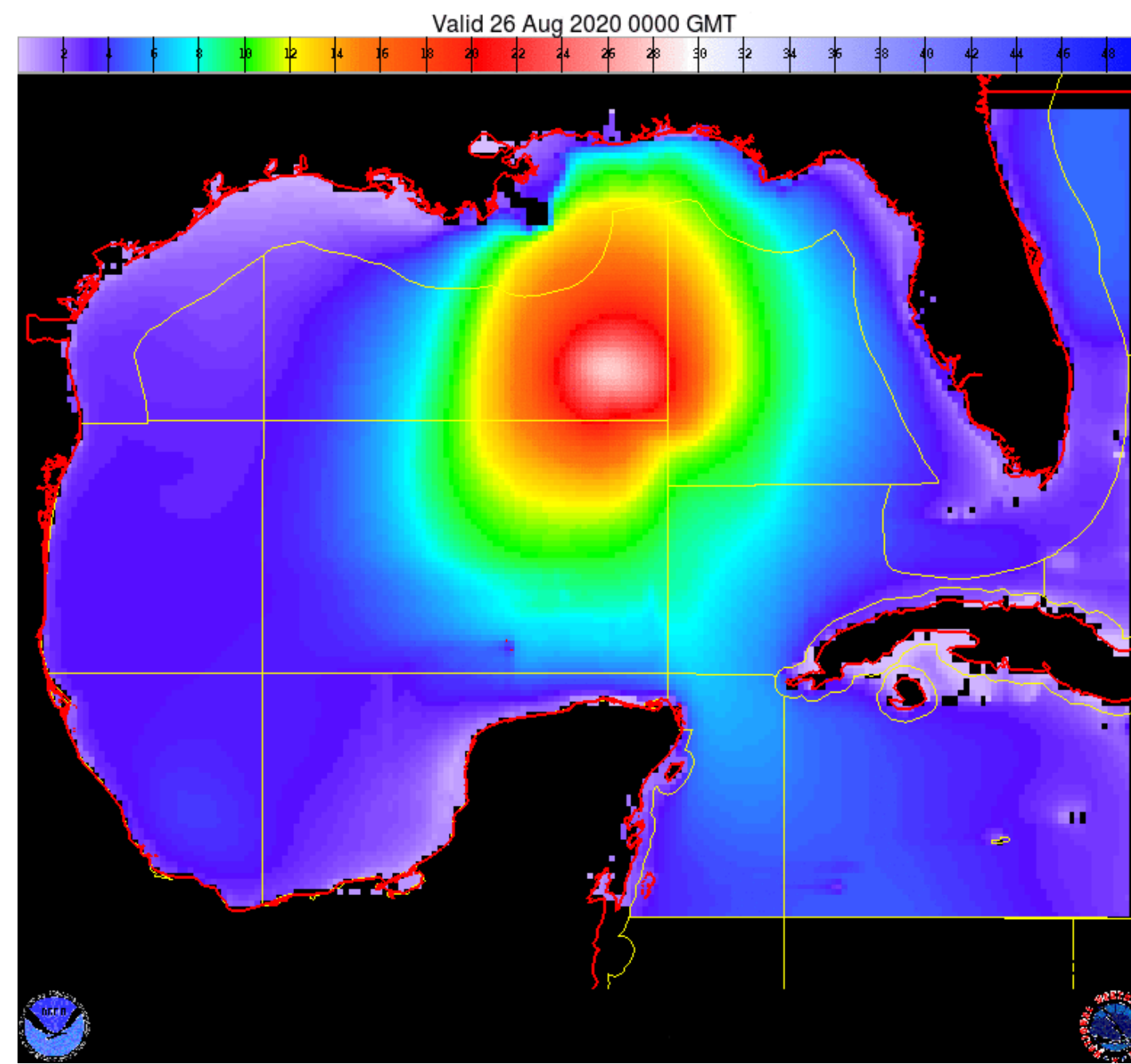
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- ❑ Higher period swell from Laura will begin to show up Wednesday.
- ❑ Possible onset of seas ≥ 6 feet within 60 NM: **Wednesday**.
- ❑ Peak seas: **15-20 feet Wednesday night** off the Upper Texas Coast (will depend on track).
- ❑ Increased surf, water levels and rip current risk.

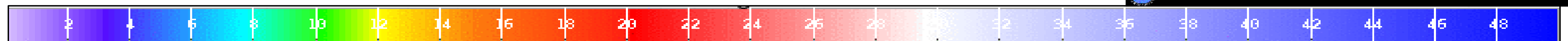
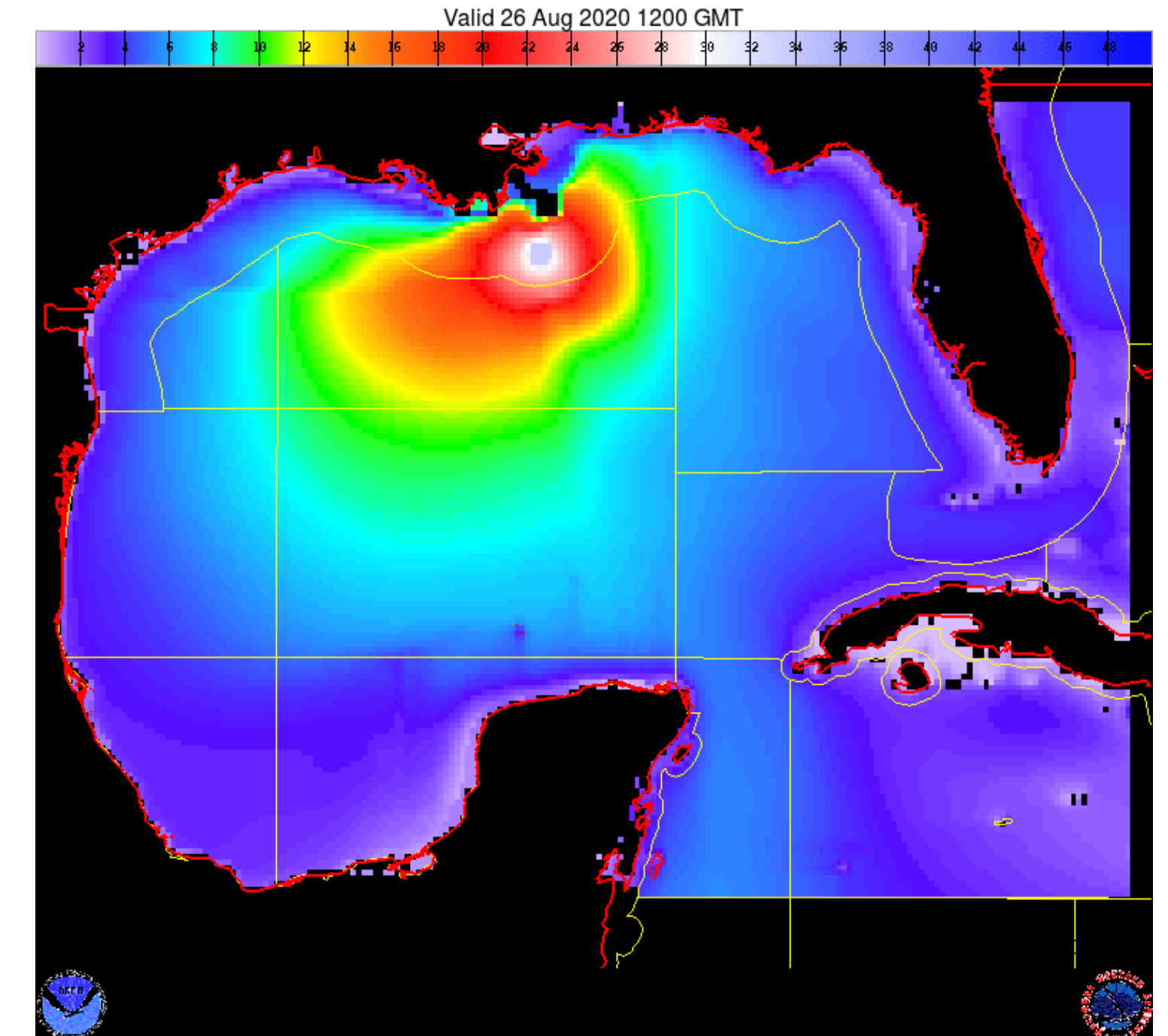
Tuesday Morning



Tuesday Evening



Wednesday Morning



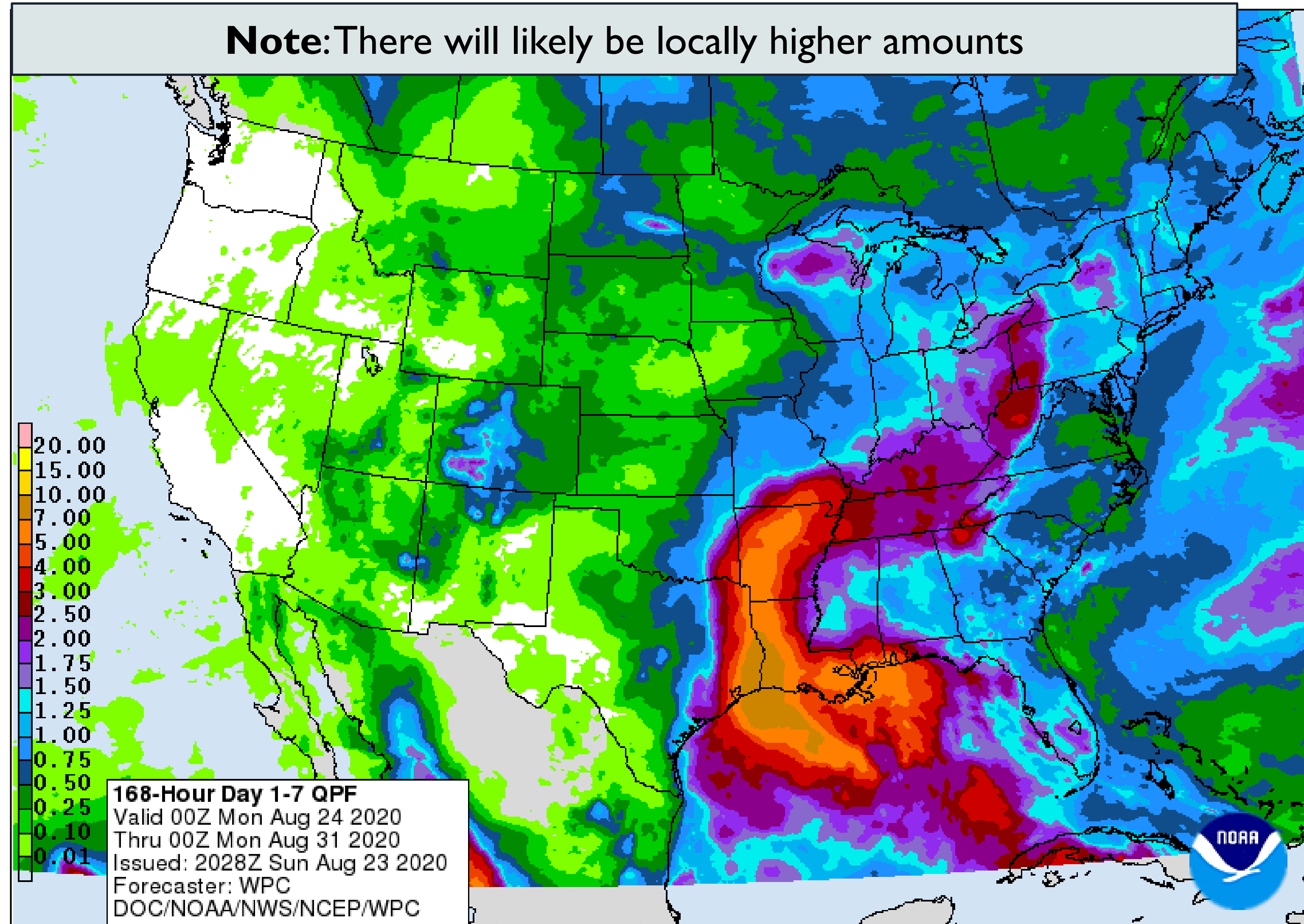
Expected Storm Total Rainfall

Tropical Storm Laura



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Note: There will likely be locally higher amounts



- Storm Total rainfall forecast valid through the next 7 days (both storms).
- Note band of 5 to 10 inches along Laura's forecast track.
- Storm is moving but even so could see locally higher amounts.

Key Take-Aways

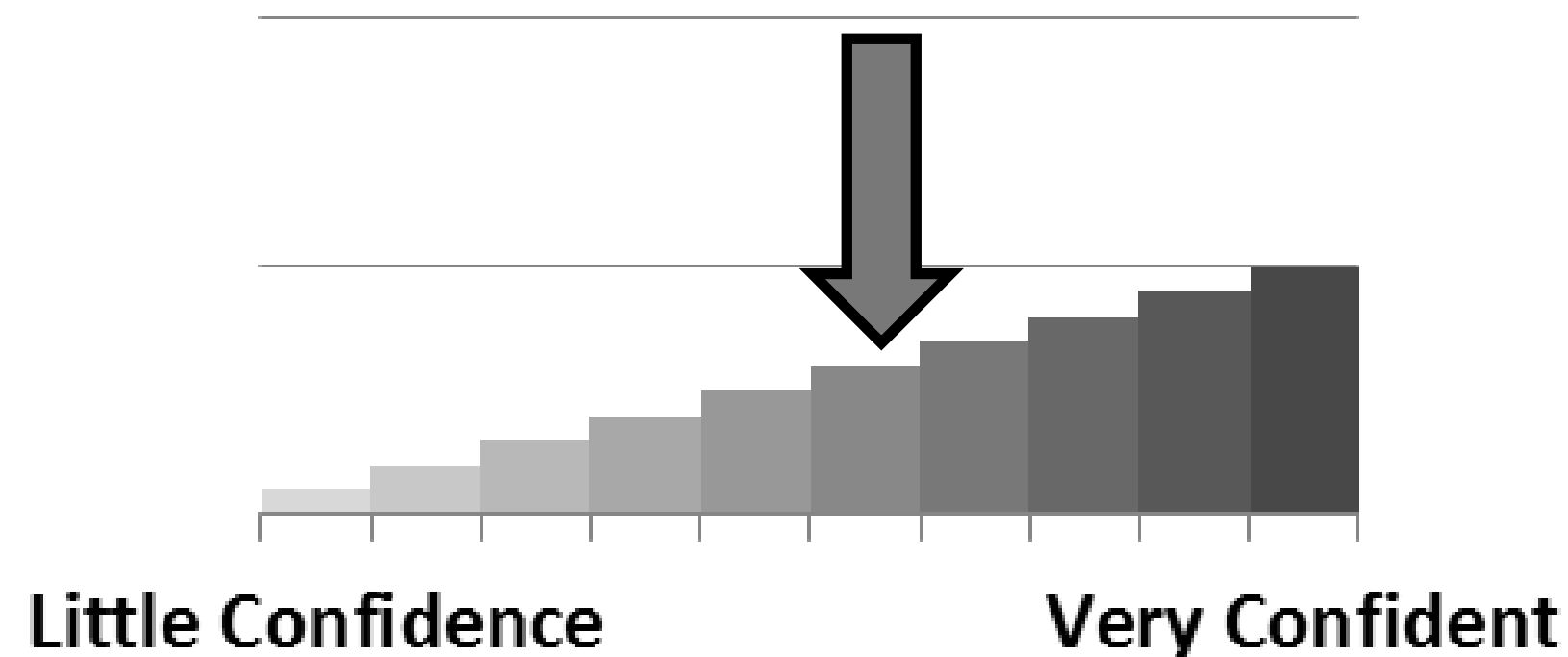
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- TS Laura is forecast to be a category 2 hurricane. It has potential to bring damaging winds, dangerous storm surge flooding and high surf to portions of the Texas, depending on how the storm tracks. Potential for heavy rains and flooding as well.
- Modelling surge potential as a Category 2 at landfall. Water levels could start to rise from Laura on Wednesday well before the arrival of the high winds. TS force winds most likely will reach the TX coast Wednesday evening.
- Lesser impacts from Marco (some increased surf). Marco expected to turn left and weaken; could track into SE Texas but should have relatively little impact.

Forecast Confidence



Still uncertainty in track but certainly potential for significant impacts to Southeast Texas and the Upper Texas Coast should Laura make a Texas landfall. Lesser impacts if the storm turns into Louisiana.



The Next Advisory: Sunday 10:00 PM CDT. Next webinar 1030 am Monday



Web: <http://weather.gov/houston>



Phone: (281)337-5074



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